REMARKS

Entry of this Amendment and reconsideration are respectfully requested in view of the amendments made to the claims and for the remarks made herein.

Claims 1-13 are pending

Claims 1-11 and 13 stand rejected. Claim 12 is objected to.

Claims 1, 9, 12 and 13 are independent claims.

Claims 1, 5, 9 and 13 have been amended.

In the telephonic interview with the Examiner the following questions were raised with regard to the Office Action issued.

1. Claim 12 was objected to for being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. However, claim 12 is an independent claim.

2. Claim 13 was rejected based on the two primary references. However claim 13 includes subject matter contained in claim 3, which was rejected based on the teachings of the two primary references and the Childers reference. (A similar situation occurs for claim 9. However, claim 9 was not discussed).

In reply, the Examiner acknowledged that claim 12 was in fact an independent claim and that it would be allowed. The Examiner noted that in supporting the allowance of claim 12, the Examiner referred to the difference between claims 5 and 12. But the exact reason was not available to the Examiner during the telephone interview.

With regard to claim 13, the Examiner also acknowledged that claim 13 (and the claims dependent therefrom) should have been rejected based on the three references cited in rejecting claim 3.

Applicant thanks the Examiner for the indication of allowable subject matter in claim 12.

However, in view of the remarks made herein, applicant believes that the rejections of the claims have been overcome and that all the claims are in condition for allowance.

The drawings are objected for including rectangular boxes lack descriptive text language.

Applicant disagrees with the objection to the drawings. However, in order to advance the prosecution of this matter, amended drawings are provided herein that include textual information. No new matter has been added. Support for the amendment may be found in the written description.

Claim 5 stands rejected under 35 USC 112, second paragraph as being indefinite.

Applicant respectfully disagrees with the reason for the rejection. However, claim 5 has been amended to remove the objected to language to present the subject matter claimed in better form.

Claims 1, 2, 6-7, 9-11 and 13 stand rejected under 35 USC 103 as being unpatentable over Dill (USP no. 4,667,305) in view of Tran (USP no. 5,901,294). In rejecting the claims, the Office Action refers to Dill for teaching an electronic data processing circuit and acknowledges that Bill fails to teach a separate controller. The Office Action further refers to Tran for teaching an electronic processing circuit and acknowledges that Tran fails to teach address handling wherein addresses are stored in a plurality of respective bus cycles.

The Office Action states that it would be obvious to include the wrap around feature of Dill in the system of Tran or to include a centralized controller such as described by Tran in the system of Dill.

Applicant respectfully disagrees with and explicitly traverses the rejection of the claims. However, in order to recite the subject matter claimed in better form, applicant has amended the independent claims to further that the addresses are placed on the address lines in an order in accordance with the position of the data bits on the data bus.

No new matter has been added. Support for the amendment may be found at least in claim 5.

With regard to the teaching of Dill, Dill teaches a system for positioning the beginning of a data word at a known position *n* and considers the condition when the data word extends pass the boundary of the data bus. In this case, the end of the data word is placed at the beginning of the data bus. Contrary to the Examiner's characterization of Dill, Dill fails to provide any teaching with regard to determining different combination of positions of data words on the data bus, as is recited in claim 1, for example. Nor does Dill teach placing the corresponding addresses on the address lines in an order the data words are placed on the data lines.

In fact, in the teaching of Dill, if there is a wrap around condition, then the data bits are out-of-order in that the least significant bits of the last data word are positioned before the most significant bits of the last data word on the data bus. (see figure 2 of Dill).

In addition, with regard to claims 9 and 13, Dill fails to provide any teaching regarding the placement of the data words on the data bus to minimize the number of data lines that will change logic level, as is recited in the claims.

Tran discloses a method for enhanced bus arbitration in a multiprocessor system having multiprocessors coupled to a system memory via a common wide bus. The common wide bus is subdivided into multiple sub-buses which may be accessed individually or in groups by a selected processor or individual sub-busses may be accessed by multiple processors simultaneously. Each processor outputs a request to the bus arbitration logic for a number of sub-buses. A maximum number of sub-buses are specified for each processor and the processors are prioritized. Each time a bus request is request is received from a processor, the number of requested sub-buses is granted, if that number is equal to less than the specified maximum number of sub-buses for the processor. If the number of requests is greater than the number of sub-buses granted than lower priority processors are denied access to their sub-buses and the sub-buses are allocated to the higher priority processors.

Thus, Tran discloses a system wherein a plurality of processors that are assigned a plurality of sub-channels. When a higher priority processor requires more sub-channels than assigned, the sub-channels of the lower priority processors are assigned to the higher priority processor. (see block 128 of Figure 5 of Tran).

However, Tran is silent with regard to placing the data words on the data bus in a combination on a same data bus and placing the corresponding write addresses on the address lines in an order that the data words are placed on the data lines, as is recited in claim 1, for example. For example, because Tran discloses the assignment of sub-channels to respective processors, Tran can select sub-channels for placing data words from a processor on the data bus. However, Tran cannot place data words from a lower priority processor with the sub-channels of a higher priority processor. Hence, Tran cannot provide for combination of the data words from different processors as is recited in the claims.

In addition, with regard to claims 9 and 13, Tran fails to provide any teaching regarding the placement of the data words on the data bus to minimize the number of data lines that will change logic level, as is recited in the claims.

Hence, with regard to each of the independent claims, the combination of Dill and Tran fails to disclose at least one material element recited in the claims.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met, 1. there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings, 2. there must be a reasonable expectation of success; and 3. the prior art reference must teach or suggest all the claim limitations.

In this case, a *prima facie* case of obviousness has not been made as each of the elements recited in the claims is not disclosed by the combination of the primary references.

For the amendments made to the independent claim and for the remarks made herein, applicant submits that the combination of the references fails to include all the elements recited in the claims. Accordingly, the subject matter recited in each of the independent claims is not render obvious as the reason for the rejection of the independent claims has been overcome. Applicant respectfully requests that the rejection

be withdrawn and the independent claims allowed.

Claims 3-5 stand rejected under 35 USC 103 as being unpatentable over Dill in view of Tran and further in view of Childers ("Reordering Memory Bus Transactions for Reduced Power Consumption.").

In rejecting the claims the Office Action refers to Childers for teaching minimizing a Hamming distance to determine a position of data on a data bus.

Childers teaches testing methods for reordering memory bus transaction to reduce power consumption using a XOR operation (i.e., a Hamming distance) between current data on the data bus and new data to be placed on the data bus. Childers discloses a bit flip cost calculation using a Xor operation between data and addresses buses.

However, Childers fails to provide any teaching that would correct the deficiency in the combination of Dill and Tran. Hence, the combination of Dill, Tran and Childers fails to disclose at least one element recited in claim 1.

Accordingly, the combination of Dill, Tran and Dornier, fails to disclose all the elements recited in claim 1, and consequently, the aforementioned dependent claims 3-5.

Claim 8 stands rejected under 35 USC 103 as being unpatentable over Dill in view of Tran and further in view of Dornier (USP no. 5,561,772).

With regard to the rejection of claim 8 Applicant submits that the combination of Dill and Tran fails to disclose at least one element recited in independent claim 1 and that Dornier fails provide any teaching that may be used correct the deficiency in the teaching of Dill and Tran.

Accordingly, the combination of Dill, Tran and Dornier, fails to disclose all the elements recited in claim 1, and consequently, the aforementioned dependent claim 8.

For the amendments made to the claims and for the remarks made, herein, applicant submits that the objects and rejection of all the claims has been overcome and respectfully requests that the objections and rejections be withdrawn.

Applicant further submits that all claims are in an allowable form and that the issuance of a Notice of Allowance is respectfully requested.

Should the Examiner believe that the disposition of any issues arising from this response may be best resolved by a telephone call, the Examiner is invited to contact applicant's representative at the telephone number listed below.

Respectfully submitted,
Daniel Piotrowski,

Date: July 9, 2008

By: Carl A. Giordano
Attorney for Applicant
Registration No. 41,780

Mail all correspondence to:
Daniel Piotrowski, Registration No. 42,079
US PHILIPS CORPORATION
P.O. Box 3001
Briarcliff Manor, NY 10510-8001
Phone: (914) 333-9608
Fax: (914) 332-0615

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being
[ ] Transmitted by facsimile to 571 273 8300;
[ ] Placed with the US Postal Service with First Class postage attached to the address indicated above;
on July _____ 2008.

Print Name

Signature